

EXHIBIT A

CURRICULUM VITAE

PERSONAL DATA

Name:	Robert Steven Danziger, MD
Address:	Apt 8105 175 E. Delaware Pl Chicago, IL 60611
Telephone:	(312) 642-5843
Email	RDanziger@aol.com
Place of Birth:	Chicago, Illinois
Citizenship:	United States
Personal:	Married with a 2 year old daughter

ACADEMIC TRAINING

1976	B.A. (Chemistry), Magna Cum Laude Duke University Durham, North Carolina
1980	M.D. University of Chicago Pritzker School of Medicine Chicago, Illinois

MEDICAL LICENSURES

Illinois (Active), New York State (exp) , Minnesota (exp), Texas (exp)

POSTDOCTORAL MEDICAL TRAINING

1980 - 1981	Medical Intern Mayo Graduate School of Medicine Rochester, Minnesota
1982 - 1984	Medical Resident Rush University Chicago, Illinois
1985 - 1988	Medical Staff Fellow Laboratory of Cardiovascular Science National Institute on Aging

Baltimore, Maryland

1992 - 1993

Postdoctoral Research Fellow
Division of Cardiology
College of Physicians & Surgeons
of Columbia University
New York, New York

MEDICAL SUBSPECIALTY FELLOWSHIP TRAINING

1988 - 1992

Bugher Research/Clinical Cardiology Fellow
University of Texas Southwestern
Dallas, Texas

SPECIALTY AND SUBSPECIALTY CERTIFICATIONS

American Board of Internal Medicine
American Board of Internal Medicine- Subspecialty Cardiovascular Diseases
(recertified 2003)
National Board of Medical Examiners

PROFESSIONAL SOCIETIES MEMBERSHIPS

International Society for Heart Research (American Section)
Biophysics Society
American Physiological Society
American Federation of Clinical Research
American College of Cardiology – Fellow
American Society of Hypertension
American Heart Association
Member of Basic Science Council
Member of High Blood Pressure Council
Cardiac Electrophysiological Society
Cardiac Muscle Society
National Kidney Foundation of Illinois, Medical Advisory Board

ACADEMIC AND HOSPITAL APPOINTMENTS

1993 - 1997

Assistant Professor of Medicine
Division of Cardiology
College of Physicians & Surgeons
of Columbia University, New York, NY

1993 - 1997

Assistant Attending Physician at Presbyterian
Hospital, New York, NY

1998 – 2004

Assistant Professor, Departments of Medicine
and Physiology, University of Illinois School of
Medicine, Chicago, IL

1998 – 2004

Attending Physician

	West Side Veterans Administration Chicago, IL
2004-present	Associate Professor of Medicine and Physiology University of Illinois at Chicago, Chicago, IL
2006-present	Associate Professor, Department of Pharmacology University of Illinois at Chicago

HONORARIES

Phi Beta Kappa
Phi Eta Sigma
Phi Lambda Upsilon
Duke Honor Society
Bugher Foundation/American Heart Association Fellow
(1988-1992)
Eastern Hypertension Society - Young Investigator Award (1997)
America's Top Physicians 2006

PATENTS

1. Electrophoretic Device for Measuring Reaction Kinetics by Continuous Sampling"
Patent number 5,344,534 (September, 1994)
2. Method for Treating Heart Failure using Tetrapyrroles and Metallotetrapyrroles.
Patent number 5,948,771. 1999 Sept.
3. FRET based method to identify proteolytic enzyme substrates (provisional filed).
4. Phosphodiesterase 4B as target for salt-hypertension (provisional filed).
5. LICENSING: Preeclamptic rat (with Harlan Sprague Dawley)

INVITED TALKS

1995 International Society of Heart Research (Orange Beach, Alabama)
1994 New York Medical College (Valhalla, NY), Department of Physiology, Grand Rounds
1997 University of Illinois, Department of Medicine
1998 University of Michigan, Division of Hypertension, Grand Rounds
1998 University of Alabama, Department of Medicine, Grand Rounds
1999 Albert Einstein College of Medicine, Section of Cardiology
2000 University of Minnesota, Pathology, Grand Rounds
2000 Harvard University – W. Roxbury VA, Research Rounds
2002 Rush University, Chicago, Department of Medicine, Grand Rounds
2002 International Signaling Conference - Cell Signaling, Transcription and Translation as
Therapeutic Targets - Luxemburg
2004 Loyola Medical Center – Renal Grand Rounds
2004 University of Texas Southwestern, Chicago, Division of Hypertension
2004 National Institute on Aging
2005 2nd International Conference on Cybernetics and Information Technologies,
Systems and Applications (CITSA'05)
2006 VI International Symposium on Vasoactive Peptides, Ouro Preto, Minas Gerais,
Brazil Feb 2006
2008 University of Michigan. Cardiovascular Research Grand Rounds

EDITORIAL BOARDS AND REVIEWS

Editorial Board: (Genetics Editor)- American Journal of Nephrology 2002 - present

Grant reviewer: Veterans' Administration, National Science Foundation, Wellcome Trust, National Kidney Foundation (Illinois Section), Phillip Morris Research Institute

Abstract Reviewer - American Heart Association Scientific Sessions, Session Moderator

AD HOC MANUSCRIPT REVIEWER

American Journal of Physiology

Biochem Biophys Res Commun.

Circulation

Circulation Research

Hypertension

Journal of Cardiovascular Pharmacology

Journal of Clinical Hypertension

Journal of Laboratory and Clinical Medicine

Physiologic Genomics

OTHERS/BUSINESS

1998-2001 President/Founder, ExpressGen Inc (Chicago, IL)

2002 Consultant to Johnson & Johnson Pharmaceuticals for development of combination guanylyl cyclase agonist/phosphodiesterase antagonist

2000-2003 Board of Directors, Dialysis Systems Inc (DSI) (Nashville, TN)

2005-2007 175 E Delaware Pl Board of Directors

2008-current Chairman Auditing Subcommittee Jesse Brown VA

GRANT SUPPORT OVER LAST 3 YEARS

American Heart Association Grant-in-Aid

PI Robert Danziger

To investigate the impact of specific genes on salt-sensitivity

\$110,000 total (10,000 indirect) over 2 years 7/2004-6/2006 (no cost 1 year extension)

National Institutes of Health (NIH) 1R21DK065628-01A1

PI: Robert Danziger

To study aminopeptidase and sgk genes in salt-sensitive hypertension

\$311,740 total (111,740 indirect) over 2 years (1/2004-12/2006) (no cost 1 year extension)

Phillip Morris Research Institute Research Award

PI: Robert Danziger

To identify candidate genes for hypertension

\$666,126 total (238,766 indirect) over 3 years 1/2004-12/2006

Merit Award Veterans Administration

To study aminopeptidase N is salt-sensitivity

\$375,000 (7/2008 – 6/2011)

NIH R21

To study phosphoprotein signaling in cardiac remodeling

\$275,000 + indirects over 2 years

(Pending – score 15%)

NIHR21

To study A-kinase anchoring proteins in heart failure

\$275,000 + indirects over 2 years

Pending

Danziger - Primary Mentor

National Institutes of Health - KO1

Kumar Kotlo

To study association of nitric oxide- and natriuretic-activated guanylyl cyclases

\$650,000 over 5 years (includes PI salary + 125,000 lab expenses + 50,000

indirects)(7/2006-6/2011)

PUBLICATIONS

ORIGINAL ARTICLES IN PEER REVIEWED JOURNALS

1. **Danziger, R.S.:** Perception of Benham Flicker colors in homing pigeons. Journal of the Elisha Mitchell Scientific Society 90:2, 1974, pp. 64-65.
2. **Danziger, R.S.,** Raffaelli S., Moreno-Sanchez R., Sakia M., Capogrossi M.C., Spurgeon H.A., Hansford R.G., and Lakatta E.G.: Extracellular ATP has a potent effect to enhance cytosolic calcium and contractility in single ventricular myocytes. Cell Calcium 9:4, 1988, 193-4.
3. Fraticelli A., Jospelson R.A., **Danziger, R.S.,** Spurgeon H., and Lakatta E.G.: Morphologic and contractile characteristics of isolated cardiac myocytes change with age. Amer. J. Phys. 257, 1989, H259-H265.
4. Sakai M., **Danziger R.S.,** Staddon J.M., Lakatta E.G., Hansford R.G.: Decrease with senescence in the norepinephrine-induced phosphorylation of myofilament proteins in isolated rat cardiac myocytes. J. Mol. Cell. Card. 21(12), 1989, 1327-36.
5. **Danziger R.S.,** Sakai M., Hansford R.G., and Lakatta E.G.: Interactive alpha- and beta-adrenergic actions of norepinephrine in rat cardiac myocytes. Cardiol. 22 (1):111-23, 1990.
6. Flores E.G., Lange R.A., Bedotto J.B., **Danziger R.S.,** Hillis L.D.: Assessment of the sensitivity of hydrogen inhalation in the detection of left-to-right shunting. Cath. and Card. Diag. 20(2), 1990, 94-8.
7. **Danziger R.S.,** Tobin J., Lakatta E.G., Fleg J.: The age-associated decline in glomerular filtration in healthy normotensive volunteers. Lack of relationship to cardiovascular performance. J. Amer. Geriatr. Soc. 38(10), 1990, 1127-32.
8. Lange R.A., Cigarroa R.G., Flores E.D., McBride W., Kim A.S., Wells P.J., Bedotto J.B., **Danziger R.S.,** Hillis L.D.: Potentiation of cocaine-induced coronary vasoconstriction by beta-adrenergic blockade. Annals of Int. Med. 112(12), 1990, 997-903.
9. **Danziger R.S.,** Capogrossi M.C., Sakai M., Hansford R.G., and Lakatta E.G.: Ethanol acutely and reversibly suppresses excitation-contraction coupling in cardiac myocytes. Cir. Res. 68(6), 1991, 1660-8.
10. Sakai M., **Danziger R.S.,** Xiao R., Spurgeon H.A., Lakatta E.G.: Contractile response of individual cardiac myocytes to norepinephrine declines with senescence. Amer. J. Phys. 262(31), 1992, H184-H189.

ORIGINAL ARTICLES IN PEER REVIEWED JOURNALS *(continued)*

11. **Danziger R.S.**, Star R.A.: Novel use of nested PCR and probe primer to confirm PCR product. *Biotechniques*. 14(3), 1993, 371-3.
12. **Danziger R.S.**, Star R.A., Matsumoto S., Coca-Prados M., DeSantis L., Pang I-H: Characterization of soluble guanylyl cyclase in transformed human non-pigmented epithelial cells. *Biochem. Biophys. Resp. Comm.* 195(2), 1993, 958-962.
13. Star R.A., Hogarth L., **Danziger R.S.**, Drewett J., Yuen PST, Pang I-H, Ujiie K: Homologous and heterologous desensitization of a guanylyl cyclase linked nitric oxide receptor in cultured rat medullary interstitial cells. *J. Pharmacol. Exp. Ther.* 270(2), 1994, 761-7.
14. Ujiie K., Yuen J., Hogarth L., **Danziger R.S.**, Star R.A.: Localization and regulation of endothelial nitric oxide synthase mRNA expression in the rat kidney. *Amer. J. Physiol.* 267, 1994, F296-302.
15. Hano O., Bogdanow K.Y., Sakai M., **Danziger R.S.**, Spurgeon H.A., Lakatta E.G: Reduced threshold for myocardial cell calcium intolerance in the rat heart with aging. *Amer. J. Physiol.* 38, 1995, H1607-612.
16. Yang H, **Danziger R.S.** Evolution of the acoustic stethoscope. *Journal of Family Practice*, 1996, 218-220.
17. Yu F., Beloin S., **Danziger R.S.** Assignment of gene coding for beta2 subunit of soluble guanylyl cyclase to human chromosome 11. *Genomics*, 1996, 334-336.
18. Marcus L.S., Hart D., Packer M., Yushak M., Medina N., **Danziger R.S.**, Heitjan D.F., Katz S.D. Hemodynamic and renal excretory effects of human brain natriuretic peptide infusion in patients with congestive heart failure: a double-blind, placebo-controlled, randomized crossover trial. *Circulation*, 1996, 3184-3189.
19. **Danziger R.S.**, Zuckerbraun B.S., Pensler J.M. The role of nitric oxide in the regulation of osteoblast metabolism. *Plastic and Reconstructive Surg.* 100, 1997 670-673.
20. Gupta G., Kim J., Sturley S.L. and **Danziger R.S.** Expression and purification of soluble, active heterodimeric guanylyl cyclase from baculovirus. *Journal of Protein Expression and Purification* 10, 1997, 325-330.
21. Gupta G. Azam M., Chen W. and **Danziger R.S.** The beta2 subunit of soluble guanylyl cyclase inhibits the stimulation of the alpha1/beta1 form of cytosolic guanylyl cyclases and is over expressed in Dahl salt-sensitive rats. *Journal of Clinical Investigation* 100, 1997, 1488-1492.

ORIGINAL ARTICLES IN PEER REVIEWED JOURNALS (continued)

22. Fan B., Gupta G., **Danziger R.S.**, Friedman J., Rousseau D.L. Resonance Raman characterization of soluble guanylyl cyclase expressed from baculovirus. *Biochemistry* 37(5), 1998, 1178-1184.
23. Mohammed A., Gupta G, Warburton D., Wellington S., **Danziger R.S.** Genetic mapping of soluble guanylyl cyclase genes: Implications for linkage to blood pressure in the Dahl rat. *Hypertension* 32, July, 1998, 149-154.
24. Malterer A., Gupta G., **Danziger R.S.** Assignment of *GUC1B2*, the gene coding for The beta2 subunit of soluble guanylyl cyclase to position 13q14.2-14.3 on human chromosome 13. *Cytogenetics and Cell Genetics* 1999; 85(3-4):256-7.
25. **Danziger R.S.**, Pappas C., Barnitz C, Varvil T., Hunt S. Leppert M.L. Evaluation of nitric oxide receptors as candidate genes for human hypertension. *J. Hypertension* 2000;18(3):263-6.
26. **Danziger R.S.** Hypertension in an evolutionary and anthropological paradigm. *Hypertension* 2001 Jul;38(1):19-22. (Perspective).
27. Roxas B, Farjah M, **Danziger R.S.** Aquaporin-2 transcript is differentially regulated by dietary salt in Sprague-Dawley and Dahl SS/Jr rats. *Biochem Biophys Res Commun* 2002 Aug 23;296(3):755-8.
28. Farjah M, Roxas B.P., Geenen DL, **Danziger R.S.** Dietary salt regulates renal SGK1 abundance: relevance to salt sensitivity in the Dahl rat. *Hypertension* 2003 Apr;41(4):874-8.
29. Farjah M, Washington TL, Roxas RP, Geenen DL, and **Danziger R.S.** Dietary NaCl regulates renal Aminopeptidase N: Mechanistic role for salt-adaptation and salt-sensitivity in the Dahl rat. *Hypertension* 2004;43(2):282-5.
30. Kotlo K, Hughes DE, Herrera VL, Ruiz-Opazo N, Costa RH, Robey RB, **Danziger RS.** Functional polymorphism of the Anpep gene increases promoter activity in the Dahl salt-resistant rat. *Hypertension* 2007; 49(3): 467-72.
31. Kotlo KU, Shukla S, Tawar U, Skidgel RA, **Danziger RS.** Aminopeptidase N Reduces Basolateral Na⁺/K⁺ ATPase in Proximal Tubule Cells. *Am J Physiol Renal Physiol.* 2007;293(4):F1047-53.
32. Tawar U, Kotlo K, Jain S, Shukla S, Setty S, **Danziger RS.** Renal Phosphodiesterase 4B Is Activated in the Dahl Salt-Sensitive Rat. *Hypertension.* *Hypertension* 2008; 51(3):762-6
33. Bhattacharyya S, Kotlo K, Shukla S, **Danziger RS,** Tobacman JK. Distinct effects of

N-acetylgalactosamine-4-sulfatase and galactose-6-sulfatase expression on chondroitin sulfates. J Biol Chem. 2008;283(15):9523-30.

34. **Danziger R.S.** Use of Protoporphyrins to Evaluate Heme Oxygenase Problematic Hypertension 2009; 53(2):e15

Invited Reviews, Others

1. Palmer, D.J. and **Danziger, R.S.**: The aging of man and medicine. Illinois Medical Journal. October, 1985, pp. 96-120.
2. Liu L. and **Danziger R.S.** Fate of conference abstracts. **Nature** 383, 1996, 20 (letter).
3. **Danziger R.S.**, You M, Akil H. Discovering the genetics of complex disorders through integration of genomic mapping and transcriptional profiling. Current Hypertension Reviews. 2005: 1(1):21-34.
4. **Danziger R.S.** and Jones C. Utility of the Dahl rat to study the genetics of human hypertension. Current Hypertension Reviews. 2005 1(2): 97-99.
5. **Danziger R.S.** Aminopeptidase N in arterial hypertension. Heart Failure Reviews 2008 ; 13(3); 293-8.

BOOK CHAPTERS

1. Churg A.K., **Danziger R.S.**, Makinen M.W.: Optical detection heme ligand configuration in sperm whale myoglobin. In: W.S. Caughey (Ed.) Biochemical and Clinical Aspects of Hemoglobin Abnormalities. Academic Press, New York, 1978, pp. 323-331.
2. Glick H.A., **Danziger R.S.**, Makinen M.W., Churg A.K., Houtchens R.A., and Caughey W.S.: Heme Ligan configuration of photodissociable ferrous myoglobin complexes. In: B. Chance (Ed.) Molecular Tunneling in Biological Systems. Academic Press, New York, 1979, pp. 651-660.